PATENT COOPERATION TREATY

PCT

INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY
(Chapter I of the Patent Cooperation Treaty)

(PCT Rule 44*bis*)

Applicant's or agent's file reference 3179WO0P	**FOR FURTHER ACTION**	See item 4 below
International application No. PCT/JP2004/009486	International filing date *(day/month/year)* 29 June 2004 (29.06.2004)	Priority date *(day/month/year)* 30 June 2003 (30.06.2003)
International Patent Classification (8th edition unless older edition indicated) See relevant information in Form PCT/ISA/237		
Applicant TAKEDA PHARMACEUTICAL COMPANY LIMITED		

1. This international preliminary report on patentability (Chapter I) is issued by the International Bureau on behalf of the International Searching Authority under Rule 44 *bis*.1(a).

2. This REPORT consists of a total of 8 sheets, including this cover sheet.

   In the attached sheets, any reference to the written opinion of the International Searching Authority should be read as a reference to the international preliminary report on patentability (Chapter I) instead.

3. This report contains indications relating to the following items:

☒	Box No. I	Basis of the report
☐	Box No. II	Priority
☒	Box No. III	Non-establishment of opinion with regard to novelty, inventive step and industrial applicability
☒	Box No. IV	Lack of unity of invention
☒	Box No. V	Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
☒	Box No. VI	Certain documents cited
☐	Box No. VII	Certain defects in the international application
☒	Box No. VIII	Certain observations on the international application

4. The International Bureau will communicate this report to designated Offices in accordance with Rules 44*bis*.3(c) and 93*bis*.1 but not, except where the applicant makes an express request under Article 23(2), before the expiration of 30 months from the priority date (Rule 44*bis* .2).

	Date of issuance of this report 01 May 2006 (01.05.2006)
The International Bureau of WIPO 34, chemin des Colombettes 1211 Geneva 20, Switzerland Facsimile No. +41 22 740 14 35	Authorized officer Masashi Honda Telephone No. +41 22 338 70 10

PATENT COOPERATION TREATY

TRANSLATION

From the
INTERNATIONAL SEARCHING AUTHORITY

To:

PCT

WRITTEN OPINION OF THE
INTERNATIONAL SEARCHING AUTHORITY

(PCT Rule 43*bis*.1)

Applicant's or agent's file reference 3179WO0P	Date of mailing *(day/month/year)* **FOR FURTHER ACTION** See paragraph 2 below

International application No.	International filing date *(day/month/year)*	Priority date *(day/month/year)*
PCT/JP2004/009486	29.06.2004	30.06.2003

International Patent Classification (IPC) or both national classification and IPC

Applicant
TAKEDA PHARMACEUTICAL COMPANY LIMITED

1. This opinion contains indications relating to the following items:

☒	Box No. I	Basis of the opinion
☐	Box No. II	Priority
☒	Box No. III	Non-establishment of opinion with regard to novelty, inventive step and industrial applicability
☒	Box No. IV	Lack of unity of invention
☒	Box No. V	Reasoned statement under Rule 43*bis*.1(a)(i) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
☒	Box No. VI	Certain documents cited
☐	Box No. VII	Certain defects in the international application
☒	Box No. VIII	Certain observations on the international application

2. **FURTHER ACTION**

If a demand for international preliminary examination is made, this opinion will be considered to be a written opinion of the International Preliminary Examining Authority ("IPEA") except that this does not apply where the applicant chooses an Authority other than this one to be the IPEA and the chosen IPEA has notified the International Bureau under Rule 66.1*bis*(b) that written opinions of this International Searching Authority will not be so considered.

If this opinion is, as provided above, considered to be a written opinion of the IPEA, the applicant is invited to submit to the IPEA a written reply together, where appropriate, with amendments, before the expiration of 3 months from the date of mailing of Form PCT/ISA/220 or before the expiration of 22 months from the priority date, whichever expires later.

For further options, see Form PCT/ISA/220.

3. For further details, see notes to Form PCT/ISA/220.

Name and mailing address of the ISA/JP Facsimile No.	Authorized officer Telephone No.

WRITTEN OPINION OF THE INTERNATIONAL SEARCHING AUTHORITY

International application No.
PCT/JP2004/009486

Box No. I Basis of this opinion

1. With regard to the **language**, this opinion has been established on the basis of the international application in the language in which it was filed, unless otherwise indicated under this item.

   ☐ This opinion has been established on the basis of a translation from the original language into the following language _____, which is the language of a translation furnished for the purposes of international search (under Rule 12.3 and 23.1(b)).

2. With regard to any **nucleotide and/or amino acid sequence** disclosed in the international application and necessary to the claimed invention, this opinion has been established on the basis of:

   a. type of material

      ☐ a sequence listing

      ☐ table(s) related to the sequence listing

   b. format of material

      ☐ in written format

      ☐ in computer readable form

   c. time of filing/furnishing

      ☐ contained in the international application as filed.

      ☐ filed together with the international application in computer readable form.

      ☐ furnished subsequently to this Authority for the purposes of search.

3. ☐ In addition, in the case that more than one version or copy of a sequence listing and/or table(s) relating thereto has been filed or furnished, the required statements that the information in the subsequent or additional copies is identical to that in the application as filed or does not go beyond the application as filed, as appropriate, were furnished.

4. Additional comments:

WRITTEN OPINION OF THE
INTERNATIONAL SEARCHING AUTHORITY

International application No.
PCT/JP2004/009486

Box No. III **Non-establishment of opinion with regard to novelty, inventive step and industrial applicability**

The questions whether the claimed invention appears to be novel, to involve an inventive step (to be non obvious), or to be industrially applicable have not been examined in respect of:

☐ the entire international application

☒ claims Nos. 9-11, 16

because:

☒ the said international application, or the said claims Nos. 9-11, 16
relate to the following subject matter which does not require an international preliminary examination (*specify*):

Claims 9-11 and 16 relates a method for treatment of the human body by therapy, which does not require an international preliminary examination in accordance with PCT Article 34 (4) (a) (i) and PCT Rule 67.1(iv).

☐ the description, claims or drawings (*indicate particular elements below*) or said claims Nos. _____
are so unclear that no meaningful opinion could be formed (*specify*):

☐ the claims, or said claims Nos. _____ are so inadequately supported
by the description that no meaningful opinion could be formed.

☒ no international search report has been established for said claims Nos. 9-11, 16

☐ the nucleotide and/or amino acid sequence listing does not comply with the standard provided for in Annex C of the Administrative Instructions in that:

the written form
- ☐ has not been furnished
- ☐ does not comply with the standard

the computer readable form
- ☐ has not been furnished
- ☐ does not comply with the standard

☐ the tables related to the nucleotide and/or amino acid sequence listing, if in computer readable form only, do not comply with the technical requirements provided for in Annex C-*bis* of the Administrative Instructions.

☐ See Supplemental Box for further details.

WRITTEN OPINION OF THE
INTERNATIONAL SEARCHING AUTHORITY

International application No.
PCT/JP2004/009486

Box No. IV Lack of unity of invention

1. ☒ In response to the invitation (Form PCT/ISA/206) to pay additional fees the applicant has:

   ☐ paid additional fees

   ☐ paid additional fees under protest

   ☒ not paid additional fees

2. ☐ This Authority found that the requirement of unity of invention is not complied with and chose not to invite the applicant to pay additional fees.

3. This Authority considers that the requirement of unity of invention in accordance with Rules 13.1, 13.2 and 13.3 is

   ☐ complied with

   ☒ not complied with for the following reasons:

While the inventions in claims 1, 4-6, and 12 is a preventive/therapeutic agents for dysuria that do not inhibit urine collection function and comprising compounds that possess acetylcholine esterase inhibition activity and that do not substantially possess butylcholinesterase inhibition activity, while, the inventions in claims 2, 7, and 13 is a preventive/therapeutic agent for dry mouth induced by therapeutic agents for dysuria containing these compounds, the inventions in claims 3, 14, 15, and 17 is a preventive/therapeutic agent for hyperactive bladder not concomitant with dry mouth containing these compounds, and the invention of claim 8 is a screening method for preventive/therapeutic substances for dysuria that do not inhibit urine collection function characterized by measurement/comparison with experimental acetylcholinesterase inhibition activity and butylcholinesterase inhibition activity.

However, dysuria differs greatly from hyperactive bladder and dry mouth induced by the administration of therapeutic agents for dysuria in cause of disease and therapeutic drugs used for therapy, and screening methods for preventive/therapeutic substances for dysuria that do not inhibit urine collection function are not acknowledged as methods particularly appropriate for the production of preventive /therapeutic substances for dysuria that do not inhibit urine collection function; accordingly, the inventions in claims 1, 4-6, and 12, the inventions in claims 2, 7, and 13, the inventions in claims 3, 14, 15, and 17, and the invention in claim 8 do not have a common matter that could be construed as a special technical feature in the sense of the second sentence of PCT Rule 13.2 and no technical relevancy is found in the sense of PCT Rule 13 among these inventions differing from each other.

Such being the case, it does not appear that there is a technical relationship between these inventions involving one or more of the same or corresponding special technical feature; therefore these inventions are not considered as being so linked as to from a single general inventive concept.

4. Consequently, this opinion has been established in respect of the following parts of the international application:

   ☐ all parts

   ☒ the parts relating to claims Nos. 1, 4-6, 12

WRITTEN OPINION OF THE
INTERNATIONAL SEARCHING AUTHORITY

International application No.
PCT/JP2004/009486

Box No. V Reasoned statement under Rule 43bis.1(a)(i) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

1. Statement

Novelty (N)	Claims		YES
	Claims	1, 4-6, 12	NO
Inventive step (IS)	Claims		YES
	Claims	1, 4-6, 12	NO
Industrial applicability (IA)	Claims		YES
	Claims	1, 4-6, 12	NO

2. Citations and explanations:

Documents Cited in the ISR
Document 1: JP 2000-169373 A (Takeda Chemical Industries, Co., Ltd.) 20 June 2000

Explanation

The inventions described in claims 1, 4-6, and 12 do not appear to possess novelty or involve an inventive step based on document 1 cited in the ISR.

Document 1 describes a noncarbamate amine compound having inhibition effect towards acetylcholinesterase such as compound A specifically disclosed in the specification as a compound having acetylcholinesterase inhibition activity and not having substantial butylcholinesterase inhibition activity effective as a preventive/therapeutic agent for dysuria.

WRITTEN OPINION OF THE
INTERNATIONAL SEARCHING AUTHORITY

International application No.
PCT/JP2004/009486

Box No. VI Certain documents cited

1. Certain published documents (Rule 43*bis*.1 and 70.10)

Application No. Patent No.	Publication date (day/month/year)	Filing date (day/month/year)	Priority date (valid claim) (day/month/year)
WO 03/57254 A1 [EX]	17.07.2003	26.12.2002	28.12.2001

2. Non-written disclosures (Rule 43*bis*.1 and 70.9)

Kind of non-written disclosure	Date of non-written disclosure (day/month/year)	Date of written disclosure referring to non-written disclosure (day/month/year)

WRITTEN OPINION OF THE
INTERNATIONAL SEARCHING AUTHORITY

International application No.
PCT/JP2004/009486

Box No. VIII Certain observations on the international application

The following observations on the clarity of the claims, description, and drawings or on the question whether the claims are fully supported by the description, are made:

Claims 1, 4-6, and 12 relate to a preventive/therapeutic agent for dysuria that does not inhibit urine collection function and that has an active ingredient defined by desired properties of "having acetylcholinesterase inhibition activity but substantially not having butylcholinesterase inhibition activity." Claims 1, 4-6, and 12 include any compound having such properties, only a very small portion of the claimed compounds are acknowledged to be supported in the specifications in the sense of PCT Article 6 and disclosed in the sense of PCT Article 5.

In addition, for "compounds having acetylcholinesterase inhibition activity but substantially not having butylcholinesterase inhibition activity," the range of compounds having such properties cannot be specified, even taking into consideration common general technical knowledge at the time of application; therefore claims 1, 4-6, and 12 do not fulfil the requirement of clarity in PCT Article 6.